

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

**1. (Currently Amended)** An electro-optical light modulation element comprising

- a substrate or a plurality of substrates,
- an electrode arrangement,
  - an element or a plurality of elements for polarisation of the light and
- a mesogenic modulation medium, wherein
- the light modulation element is operated at the temperature at which the modulation medium in the unaddressed state is in an optically isotropic phase and
- the mesogenic modulation medium comprises a chiral component, component (A), which consists of one or more chiral compounds, at least one of which has an HTP of  $30 \mu\text{m}^{-1}$  or more, and
- the mesogenic modulation medium comprises an achiral component, component (B), which consists of one or more achiral compounds,
- the ~~mesogenic~~light modulation medium~~element~~ is operated at the temperature at which the ~~light~~mesogenic modulation element~~medium~~ has a blue phase or
- the ~~mesogenic~~light modulation medium~~element~~ is operated at the temperature at which the ~~light~~mesogenic modulation element~~medium~~ is in the isotropic phase, wherein
- the relative temperature dependence ( $dV^*_{4070}/dT$ ) of the characteristic voltage for ~~4070~~70% relative contrast ( $V_{10}$ ) of the modulation medium is 30%/degree or less at a temperature of  $2^\circ$  above the characteristic temperature ( $T_{\text{char.}}$ ) in the range of  $\pm 1^\circ$  around this temperature.

**2. (Previously Presented)** The electro-optical light modulation element according to Claim 1, wherein

- the electrode arrangement is able to generate an electric field having a significant component parallel to the surface of the mesogenic modulation medium.

**3. (Previously Presented)** The electro-optical light modulation element according to Claim 1, wherein

- the mesogenic modulation medium has a blue phase.

**4.– 6. (Cancelled)**

**7. (Currently Amended)** The electro-optical light modulation element according to Claim 1, wherein

- the relative temperature dependence ( $dV_{4070}^*/dT$ ) is 23%/degree or less.

**8. (Currently Amended)** An electro-optical light modulation element comprising

- a substrate or a plurality of substrates,
- an electrode arrangement,
  - an element or a plurality of elements for polarisation of the light and
- a mesogenic modulation medium, wherein
- the light modulation element is operated at the temperature at which the modulation medium in the unaddressed state is in an optically isotropic phase and
- the mesogenic modulation medium comprises a chiral component, component (A), which consists of one or more chiral compounds, at least one of which has an HTP of  $30 \mu\text{m}^{-1}$  or more, and
- the mesogenic modulation medium comprises an achiral component, component (B), which consists of one or more achiral compounds,
- ~~the mesogenic light modulation medium element~~ is operated at the temperature at which the ~~light mesogenic modulation element medium~~ has a blue phase or
- ~~the mesogenic light modulation medium element~~ is operated at the temperature at which the ~~light mesogenic modulation element medium~~ is in the isotropic phase and
- the characteristic voltage for ~~4070~~ relative contrast ( $V_{4070}$ ) at a temperature of  $2^\circ$  above the characteristic temperature ( $T_{\text{char.}}$ ) of the modulation medium in cells is 80 V.

**9. (Previously Presented)** The electro-optical light modulation element according to Claim 1, wherein

- the mesogenic modulation medium comprises a chiral component, component (A), which consists of two or more chiral compounds.

**10. (Currently Amended)** An electro-optical light modulation element comprising

- a substrate or a plurality of substrates,
- an electrode arrangement,

- an element or a plurality of elements for polarisation of the light and
  - a mesogenic modulation medium, wherein
  - the light modulation element is operated at the temperature at which the modulation medium in the unaddressed state is in an optically isotropic phase and
  - the mesogenic modulation medium comprises a chiral component, component (A), which consists of two or more chiral compounds, at least one of which has an HTP of  $30 \mu\text{m}^{-1}$  or more, and
  - the mesogenic modulation medium comprises an achiral component, component (B), which consists of one or more achiral compounds,
  - ~~the mesogenic light modulation medium element~~ is operated at the temperature at which the ~~light mesogenic modulation element medium~~ has a blue phase or
  - ~~the mesogenic light modulation medium element~~ is operated at the temperature at which the ~~light mesogenic modulation element medium~~ is in the isotropic phase,
- and
- all the chiral compounds of component (A) have the same sign of the HTP at  $20^\circ\text{C}$  in the reference mixture.

**11. – 12. (Cancelled)**

- 13. (Currently Amended)** An electro-optical light modulation element, wherein
- a substrate or a plurality of substrates,
  - an electrode arrangement,
    - an element or a plurality of elements for polarisation of the light and
  - a mesogenic modulation medium, wherein
  - the light modulation element is operated at the temperature at which the modulation medium in the unaddressed state is in an optically isotropic phase and
  - the mesogenic modulation medium comprises a chiral component, component (A), which consists of one or more chiral compounds, at least one of which has an HTP of  $30 \mu\text{m}^{-1}$  or more, and
  - the mesogenic modulation medium comprises an achiral component, component (B), which consists of one or more achiral compounds,
  - ~~the mesogenic light modulation medium element~~ is operated at the temperature at which the ~~light mesogenic modulation element medium~~ has a blue phase or
  - ~~the mesogenic light modulation medium element~~ is operated at the temperature at which the ~~light mesogenic modulation element medium~~ is in the isotropic phase

and either

- the dielectric susceptibility ( $\epsilon_{av.}$ ) of the modulation medium at a temperature of 4 degrees above the conversion temperature from the blue phase or from the cholesteric phase into the isotropic phase is 40 or more, or
- the optical anisotropy at a temperature of 4 degrees below the transition temperature from the cholesteric phase into the isotropic phase is 0.050 or more.

**14. (Previously Presented)** The electro-optical light modulation element, wherein

- the optical anisotropy at a temperature of 4 degrees below the transition temperature from the cholesteric phase into the isotropic phase is 0.050 or more.

**15. (Previously Presented)** An electro-optical display containing one or more light modulation elements according to Claim 1.

**16. (Previously Presented)** The electro-optical display according to Claim 15, wherein the display is addressed by means of an active matrix.

**17. (Previously Presented)** An electro-optical display system containing one or more electro-optical displays according to Claim 15.

**18. (Previously Presented)** The electro-optical display system according to Claim 17, which is a television screen, computer monitor or as both.

**19. – 20. Cancelled)**

**21. (Previously Presented)** A method for the display of video signals or of digital signals or information, comprising transmitting video signals or digital signals to a display according to Claim 15.

**22. (Cancelled)**

**23. (Currently Amended)** A mesogenic modulation medium which comprises

- (a) a chiral component, component (A), which consists of one or more chiral

- compounds at least one of which has an HTP of  $30\ \mu\text{m}^{-1}$  or more, and
- (b) optionally an achiral component, component (B), which consists of one or more achiral compounds,
- the ~~mesogenic~~light modulation ~~medium~~element is operated at the temperature at which the ~~light~~mesogenic modulation ~~element~~medium has a blue phase or
  - the ~~mesogenic~~light modulation ~~medium~~element is operated at the temperature at which the ~~light~~mesogenic modulation ~~element~~medium is in the isotropic phase, wherein
  - the relative temperature dependence ( $dV_{4970}^*/dT$ ) of the characteristic voltage for ~~40~~70% relative contrast ( $V_{4970}$ ) of the modulation medium is 30%/degree or less at a temperature of  $2^\circ$  above the characteristic temperature ( $T_{\text{char.}}$ ) in the range of  $\pm 1^\circ$  around this temperature.

**24. – 26. (Cancelled)**

**27. (Previously Presented)** A medium according to Claim 23, having a characteristic temperature in the range from  $0^\circ\text{C}$  to  $60^\circ\text{C}$ .

**28. (Previously Presented)** A medium according to Claim 32, wherein the blue phase has a temperature range of at least 5 degrees.

**29. (Previously Presented)** A medium according to Claim 28, wherein the blue phase has a temperature range of at least 10 degrees.

**30. (Previously Presented)** The electro-optical light modulation element according to Claim 1, wherein component (A) consists of one or more chiral components at least one of which has an HTP of  $50\ \mu\text{m}^{-1}$  or more.

**31. (Previously Presented)** The electro-optical light modulation element according to Claim 1, wherein component (A) consists of one or more chiral components at least one of which has an HTP of  $90\ \mu\text{m}^{-1}$  or more.

**32. (Previously Presented)** A medium according to Claim 23, having a blue phase, with a characteristic temperature in the range from  $-20^\circ\text{C}$  or below to  $80^\circ\text{C}$ .